

The Society for the Study
of Inebriety.

REPORT

OF THE

COMMITTEE ON HEREDITY.

APRIL, 1901.

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LONDON, W.C.



THE SOCIETY FOR THE STUDY OF INEBRIETY.

At the Quarterly Meeting of the Society for the Study of Inebriety held on July 13, 1899, a resolution was passed by the Members to constitute a Special Committee to consider the relation of Heredity to Inebriety. The Council of the Society met on October 12, 1899, and approved of this resolution; and a Special Committee consisting of the new President, Dr. Wynn Westcott, Dr. Thomas Morton, Dr. Archdall Reid, Dr. Harry Campbell, Dr. Heywood Smith, Professor Victor Horsley, Professor Sims Woodhead, Dr. Laing Gordon, Dr. Lauzun Brown, Mr. Henry Rayner, Mr. Wm. Francis Hazel, Mr. Wm. Henry Kesteven, Surgeon-Major Poole, and Dr. Aydon Smith the Honorary Secretary, was appointed, with power to add to their number — "To investigate the conditions under which the tendency to inebriety is capable of transmission to offspring." The first meeting was fixed for November 13, 1899, and Dr. Harry Campbell courteously offered the use of his house at 23 Wimpole Street.

The Committee has held twenty-one meetings.

Professor Victor Horsley and Dr. Henry Rayner have been unable to take part in the work. Dr. Lauzun Brown has been obliged to leave the Country for medical duties in Africa. Dr. A. E. J. Longhurst and Dr. Wm. Charles Sullivan were added to the Committee.

The last meeting of the Committee was held on February 7, 1901, when the annexed Report was approved by nine members, some of whom, however, have added comments on certain points upon which they dissented from the terms of the Report. These comments are printed after the clauses of the Report. Mr. Kesteven supplies a separate Report. Dr. Longhurst, Dr. Sullivan, and Surgeon-Major Poole were unable to sign the Report.

Dr. Thomas Morton has kindly acted as Secretary to the Committee, and is especially thanked for his services; Dr. Harry Campbell is also thanked for his kindness in lending his house for the meetings of the Committee.

Dr. Wynn Westcott was appointed Chairman of the Heredity Committee, and he presents the accompanying Report and opinions to the Council of the Society.

At a meeting of the Council held on April 16, 1901, this Report was received and adopted and ordered to be printed and circulated among the Members and Associates.

REPORT OF THE COMMITTEE UPON THE HEREDITY OF INEBRIETY.

I. The genesis of inebriety in the individual depends on three essential factors, of which one is inborn, and the others acquired.—*Dr. Thomas Morton declining to sign.*

II. The inborn factor is a capacity for enjoying the sensations evoked by indulgence in alcohol. Without it men would not drink, for they would not enjoy drinking.—*Dr. Thomas Morton declining to sign.*

III. The acquired factors are:—(a) A personal experience of the sensations evoked by alcohol. Without this acquired knowledge, this memory, no man could crave for the sensations in the sense the inebriate craves. (b) The increased delight in drink which continued indulgence in drink confers. It is an essential factor, for, in Europeans at any rate, a single experience of drink rarely gives rise to a craving for it.—*Dr. Thomas Morton declining to sign.*

IV. The inborn capacity for enjoying alcohol, like other inborn traits, is certainly heritable, and for this reason, among others, it is that one drunken generation succeeds another.

V. On the other hand there is no evidence that acquired characters are heritable.

VI. In particular there is no evidence that characters acquired by the parent through indulgence in drink are inherited by the children subsequently born. The Committee are aware that it is possible that the mental and physical states produced in the parent by indulgence in alcohol do affect the child in some way through inheritance; again they admit as possible, though strictly speaking this is no question of the inheritance of an acquirement, that indulgence may so damage the parental

tissues that the germ is ill-nourished, and the child is thus affected ; yet again they admit as possible that the alcohol circulating in the parent's blood may directly affect the germ, and in this manner affect the offspring, as by producing degeneracy. But these speculations have not been strongly supported by any evidence tendered to the Committee.

VII. Just as men differ in size, in strength, in colour, and in every other peculiarity, so they differ in their capacity for enjoying alcohol, some men delighting greatly in it and some men little.

VIII. Men differ also in their capacity for resisting the temptation to drink to excess, some men giving way more, and some less, to the temptation to indulge.—*See comments of Dr. Archdall Reid and Dr. Laing Gordon.*

IX. As a rule men drink in proportion to their desires, balanced, however, by each man's degree of self-control, and by the environment in which he is placed ; in other words, men who greatly enjoy alcohol drink, as a rule, deeper than men who enjoy it less. As a consequence, deep and habitual drinkers are almost invariably those to whom alcohol brings much enjoyment (either as positive pleasure or as cessation of pain) ; whereas the great bulk of temperate persons are those to whom it brings comparatively little or even no enjoyment. The Committee recognise that there are numerous exceptions, for men are influenced by moral, religious and other considerations. Yet the fact remains that he who is greatly tempted more often falls than he who is less tempted.

X. Alcohol is a poison, as is abundantly proved by common experience and the statistics of temperance, friendly, and insurance societies. These prove conclusively, that as a class, drinkers have shorter lives than abstainers, and afford a presumption that they also leave fewer descendants.

XI. Alcohol, like every other toxic agent, has most effect upon those who are most exposed to its influence. In other words it continually weeds out from every race exposed to it the individuals who most enjoy and indulge in it.

XII. Races that have long been exposed to the action of alcohol have grown more and more temperate. For example, Greeks, Italians, South Frenchmen and Germans, Spaniards, Portuguese and Jews, who have been most exposed to the action of alcohol, are very temperate. The nations of Northern

Europe, on the other hand, who have been less exposed to the action of alcohol, for example, the British, Scandinavian, and Russian are more drunken ; whereas most savages, Esquimaux, Red Indians, Pacific Islanders, Terra del Fuegians, Australians and others who have had little or no racial experience of alcohol are excessively drunken. West Africans form an exception to the drunkenness of savages ; they are comparatively temperate, but they have been long weeded out by alcohol in the shape of abundant supplies of palm wine.—*Dr. Thomas Morton declining to sign, and see comments of Dr. Wynn Westcott and Professor Sims Woodhead.*

XIII. It must, however, be recognised that national differences are not wholly dependent on this age to age elimination. Much must be allowed for national differences in temperament, independent of this factor of elimination, and for ideals of enjoyment, for differences in the kind of intoxicant used, for social and industrial conditions, and for the want of self-control in savage races.—*Dr. Archdall Reid and Dr. Laing Gordon dissenting.*

XIV. It follows that the inborn tendency to inebriety is heritable and that the trait is most marked in races that have had little or no experience of the poison. Apparently the trait arose in man quite apart from the use of alcohol, since races which have had no experience of alcohol or any other narcotic are the most drunken of all when afforded the opportunity. Setting aside all *à priori* considerations and judging solely by available evidence, the Committee are of the opinion that the continued use, or rather abuse, of alcohol, tends to render a race less innately prone to excessive indulgence than it would otherwise have been, and that this result is brought about by the elimination of those with a strong tendency to alcoholic indulgence, and the survival of those with a weak tendency to alcoholic indulgence. They are aware of and have devoted full consideration to the widespread belief that parental indulgence tends to render offspring more innately prone than they otherwise would have been to excessive indulgence, but they can only reiterate their conviction, that the existing evidence on the subject does not at present warrant such a conclusion.—*See Professor Sims Woodhead's and Dr. T. Morton's comments.*

XV. The offspring of women intemperate during their pregnancies are not included in the foregoing conclusions. There is

some evidence that fœtuses and embryos are injured by maternal inebriety ; but here again the Committee has no conclusive evidence that this injury takes such a form that in subsequent life the children have a special predisposition to inebriety.

Signed by :—

WILLIAM WYNN WESTCOTT, Chairman.

HARRY CAMPBELL.

LAING GORDON.

WILLIAM FRANCIS HAZELL.

ARCHDALL REID.

AYDON SMITH.

HEYWOOD SMITH.

SIMS WOODHEAD.

THOMAS MORTON, Honorary Secretary.

Comments of those who dissent from certain parts of the Report.

Comments by PROFESSOR SIMS WOODHEAD.

As one of the Committee I sign the Report, *as a whole*, because we have agreed to send out a statement which may prove of service in drawing attention to the Inebriety question. As to sections 12 and 14 I cannot say that I am satisfied with the evidence that has been brought forward in support of them. I think, however, that they ought to stand as embodying the opinion of certain members of the Committee, and that even those of us who do not sign these sections are of opinion that the two theses (or rather the thesis) embodied form a basis for further research, but I think that for the present they are only open to academic discussion, and that they only touch a small part of the whole question.

SIMS WOODHEAD, Cambridge.

Comments by DR. LONGHURST.

- No. 1. Too bald and abstract a statement without evidence in support of it.
2. The taste for drink, not necessarily inborn may be acquired.
3. Increased desire for, not *delight* in drink.
4. The inborn capacity for enjoying alcohol is occasionally heritable, but not always so.
5. In my opinion evidence does exist that acquired characters are heritable, as is stated by Virchow and others.
6. If no actual or experimental evidence is available, family experience in

successive generations supports belief that acquired characters of parents are inherited by the children subsequently born.

7. Accepted.

8. Do.

9. Do.

10. Do.

11. Do.

12. Simply because the drunken die out.

13. Accepted.

14. Yes, the inborn tendency to inebriety is heritable, but I cannot accept the statement of the report that the trait is most marked in races that have had little or no experience of the poison, which statement is unsupported by any evidence or proof.

15. Yes, I agree that fœtuses and embryos are injured by maternal inebriety, and think it highly probable that the injury may produce in such, a special predisposition to inebriety, though evidence of it may be wanting.

I return the Report herewith, with the above comments, and as I was not present at the earlier sittings of the Committee I feel that I cannot honestly sign the Report.

A. E. T. LONGHURST.

Comments by SURGEON-MAJOR POOLE.

No. 1. I deny that there is in any individual genesis of inebriety.

2. This paragraph then falls to the ground in consequence of my denial of No. 1.

3. This I agree to.

4. There is no proof of this. One drunken generation succeeds another on account of the education in inebriety given to their offspring by drunken parents; the evidence of non-heredity appears to me just as strong as the evidence of heredity, for we constantly see the offspring of drunkards perfectly temperate especially if they have been brought up in an atmosphere of total abstinence.

11. I deny that deep habitual drinkers get much enjoyment from the excessive use of alcohol, and would rather incline to the opinion that really so-called temperate people do often enjoy its use.

12. I consider this assertion unwarranted either by evidence or recognized experience, and this paragraph should not be inserted. Races to whom alcohol has been introduced without knowing the consequences of indulgence in the same, and recognising its effects as those of exhilaration and to a certain extent pleasurable, take to its use, and then to its excessive use, until they perceive the injury it is doing to their race and people, and then they learn the better way, leave it off and so become more temperate. It seems to me that unfortunately no nations have been more exposed to the use and abuse of alcohol in its many forms than the British, to say nothing of the Scandinavian or Russian, and yet its use is increasing more and more, among the British at least, with the direst results.

14. Seeing that I deny the inborn tendency to inebriety it follows that I deny its heredity; races which have no experience of alcohol are *per se* not the most drunken. There is no evidence to prove that they are. Their acquired habits of drinking is the result of the continual and continued pouring into their midst of liquors with the most potent inebriating qualities.

I approve of the latter half of this paragraph on the whole.

GEO. K. POOLE, M.D., Surgeon-Major H.M.I.S.

Comments by DR. LAING GORDON.

8. I cannot agree that "the capacity for resisting the temptation to drink to excess" is of any importance in relation to heredity, seeing that "as a rule men drink in proportion to their desires," (see 9); surely it is the rule that man exercises his will, to satisfy, and not to oppose his desires.

12. While convinced of the truth of this important clause, I am of opinion that the Committee might have made research with advantage, to ascertain for itself further facts bearing upon this subject.

13. This is a vague clause and assumes much while proving nothing. There is no proof that nations are temperate *as nations* from any cause other than the survival of those with the least capacity for enjoying the sensations produced by indulgence in alcoholic drinks.

I think that the meaning of some of the clauses might be made clearer by a revision of the construction.

H. LAING GORDON.

December, 18, 1900.

Comments by DR. ARCHDALL REID.

The report is true in the main, but it contains some clauses which rob the truth of its clearness and emphasis. As a result the report is defective both as a statement of fact and as a literary production, and to that extent will fail to carry conviction.

At the end of paragraph 6 it is stated that the view that parental drinking injures the child was not *strongly* "supported by any evidence tendered to the Committee." By that is implied that *some* evidence was tendered. As a fact none was tendered which I could accept, there was nothing to indicate that the usual confusion between *post* and *propter hoc* had not once again occurred. On the other hand overwhelming evidence was tendered that parental drunkenness does not injuriously affect the germs. Germinal changes are transmissible to remote descendants. If alcohol injuriously affected the germs, the effects would accumulate generation after generation till the race became extinct; no instance of such racial deterioration is discoverable.

Paragraph 8 is true by itself but false when taken with the context. Read with the context it implies that resolute men with a desire for alcohol use, as a rule, their will power to control not to gratify their desires. The question is

begged. The opening lines of the next paragraph absolutely contradict the statement.

Paragraph 13 is intended to tone down paragraph 12. Partly true when taken by itself, it is quite untrue when taken with the context. Moreover, the terms in which it is couched are deplorably lacking in scientific precision. No evidence was tendered to the Committee in support of any of its contentions. A question is begged in every line of it. The kinds of temperament which render races sober or the reverse are not specified, nor are the races affected by them indicated. It is evidently assumed that the effects of temperament increase the contrast between the sober and the drunken races, but no proof was offered. What is meant by "ideals of enjoyment" and what their effects on the different races are supposed to be, is also left to the imagination. As a fact the main thesis of the report is that races differ with respect to their capacities for enjoying alcoholic indulgence. Thus, North Europeans are so constituted that they enjoy intemperance more than South Europeans. Of necessity their temperament and ideals of enjoyment are thereby rendered different. So much is clear; but something more than this is hinted at in the passage under consideration—hinted at, but not clearly specified.

Again no evidence was produced that the kind of intoxicant used makes any difference in the sobriety of the race. It is plainly intended to hint that the more dilute solutions make for sobriety. But savages who are unable to manufacture alcohol, or can manufacture it in very dilute solutions only, are extremely drunken if given the opportunity. The English who consume three-quarters of their alcohol as beer, and less than one-quarter as spirits, are less temperate than South Europeans, whose wine on the average is more than twice as strong as beer.

Lastly, it is hinted that savages are drunken because they lack self-control—an unproved and unprovable assumption. Savages are drunk because they are intensely tempted by alcohol. Most of us are sober not because we exercise great self-control, but simply because we lack the great craving that savages have. If the contrary were true, we who have constant opportunities for indulgence, should each of us be tormented by a continual craving to get drunk. I am sure that is not the case with most of us. If instead of thinking in the abstract terms of the paragraph we examine concrete cases it will be found that national differences with respect to drinking depend wholly on elimination. When there are concomitant circumstances they will be found to minimise not to accentuate the differences. Thus the dear alcohol and the vigorous temperance propaganda in Great Britain minimise the difference between the British and the South Europeans, who have cheap alcohol and no temperance propaganda. Again, in Great Britain temperance is a much desired and sought for ideal. In the South of Europe it is not, since it is a fact accomplished without effort. People no longer strive for that which they have already attained.

The Committee had a clear and unmistakable message of high importance to give. It had discovered that certain popular beliefs were mere superstitions. It is a thousand pities that it has failed in some respects to deliver its message clearly and emphatically. The report should have been founded solely on verifiable evidence; some of it is altogether against the weight of evidence.

G. ARCHDALL REID.

Comments by DR. WYNN WESTCOTT.

ON CLAUSE 14.—The opening statement of this Clause is true so far as my study of the subject enables me to judge. The Committee has adopted the remarks on national peculiarities on the authority of the researches of Dr. Archdall Reid, and has itself not made any investigations on this subject. The comparative sobriety of different races and nations at different ages is hardly capable of any definite proof, although correct inferences may possibly be drawn from literary sources.

WYNN WESTCOTT.

Comments by DR. THOMAS MORTON.

Although I do not like the form which either the proceedings of the Committee or their outcome have taken, I sign the Report, with some reservations, because I agree generally with its two contentions (4, 5, and 6) that the inebriate constitution, *in so far as it is* an acquired character, cannot be transmitted to offspring, but only *in so far as it is* an inborn character; and that (10 and 11) elimination of the families most prone to inebriety must have been, as it certainly is, constantly going on, whatever may be the value of the facts alleged in Clause 12, as to which I desire to be considered as offering no opinion.

I believe all men (7) are more or less potential inebriates, which is only another way of expressing the facts that all men are more or less led by the desire of pleasurable sensations, and that alcohol, among—and supreme among—certain other drugs, is so marvellously related to the human body as to be capable not only of exciting such sensations in an exquisite degree, but of establishing a morbid condition in which they are more and more craved for.

This potential inebriety varies within wide limits, and what is inherited in the case of those who have it most strongly is not a simple supernormal capacity for delighting in alcohol or other narcotic drugs, but something very much more complex, which may be briefly described as a constitution in which the balance between this capacity and the power of self-control in the face of temptation is disturbed, either by the excess of the one or the defect of the other, or possibly by both, and in which a morbid crave is easily set up.

And although I do not believe the life led by an inebriate parent can increase the one (6), I go far beyond the grudging admissions of the Report in thinking it quite probable it may diminish the other, and cause a morbid crave to be easily set up.

From this point of view the investigation of the effects of chronic alcoholism and other more or less parallel poisonings in conducing to degeneracy in offspring, to which the Committee were repeatedly invited by a valued member, would have come well within the scope of the enquiry, and I deeply regret that the Committee did not see its way to collect information upon, and seriously investigate, the question of degeneracy from paternal alcoholism, which is entirely ignored in Section 14.

Maternal alcoholism (15) of course affects the developing child directly through the circulation, apart from true inheritance. It is therefore properly treated apart in the Report, and I hope care will be taken to keep it apart in subsequent investigations, but I think its effects might have been much more unreservedly admitted.

The Report may be taken for what it is worth as an expression of the opinions of a small body of men who have given their attention to the subject, but I am painfully conscious that, although it may correct some popular misapprehensions, it does not advance in any degree the little exact knowledge of the subject which we possess.

T. MORTON, M.D.

THE SEPARATE REPORT OF MR. KESTEVEN.

I cannot sign the Report as it does not express my views. The following statement reproduces the information which I have either gathered from the discussions of the Committee, or have found confirmed thereby. I have cut it down as much as I can consistently with perspicuity.

W. HENRY KESTEVEN.

I. Inebriety is a form or variety of morbid deficiency of the power of self-control, which shows itself in the unrestrained or inefficiently controlled indulgence of a craving for the sensations of well being caused by the use of alcohol, or such like drugs.

II. This morbid deficiency of the power of self control may be inborn, that is hereditarily transmitted, or it may be acquired by the individual.

III. The craving for the sensations of well being, in other words for the gratification of the animal sensations is inborn in the race.

IV. The use of alcohol, or any other drug, is always an acquired habit.

V. Excessive use of alcohol results in the individual in the poisoning of all the tissues of his body, whether those tissues be somatic or germinal.

VI. Such toxic action impairs the nutrition metabolism of the somatic tissues, producing degenerative changes, *and taints and diminishes the vitality of the germinal tissues.* (NOTE).

VII. This lesion of the vitality of the germinal tissue shows itself in the offspring developing therefrom, by affecting those

nervous elements which are the latest products of evolution, and therefore the least stable, which also constitute the physical basis of the higher mental operations.

VIII. This affection of the nervous elements consists in an impaired vitality, and therefore retarded development, with enfeebled performance of the functions of these tissues.

IX. This condition may manifest itself, first, in arrested mental development (idiocy); second, in greater irritability or proneness to discharge (epilepsy); or thirdly, in a diminution from the average mental power of self-control.

X. It is under this latter manifestation that the tendency to inebriety is met with.

XI. If in addition to the racial inborn tendency to indulge *the animal cravings* (*N.B.*—Not a tendency to inebriety but to the general condition), there be, in the parent, an inborn morbid deficiency of the power of self-control, and if this is manifested by inebriety, the offspring of such parent will be more prone to exhibit such inborn instability than when this parental deficiency is not present, in consequence of the injury to the germinal matter from which the said offspring is developed. That is, if the lesion does not produce the more organic changes which are seen in idiocy and epilepsy.

XII. That this proneness to instability will take the form of inebriety in the offspring, does not follow, as the use of alcohol has to be acquired. But should that form of animal gratification out-balance others, inebriety is liable to re-appear.

NOTE on Paragraph VI.—The proof of the fact asserted in the last sentence is found, first, in the fact that the germinal matter is part of the parental body; secondly, is supplied with nutrition by the same means as the other tissues; and thirdly its protoplasm is subject to, the same intoxication as that of the somatic tissues. This fact is also shown in lead poisoning. No one will dispute that alcohol acts as a poison and produces definite degenerative changes in the metabolism and structure of the organs of the body that are actively engaged in the vital processes, *e.g.*, the liver, the kidneys, the heart, and the nervous system. In tissues not so actively concerned in metabolic changes, as for example, the germinal cells of the testes and ovaries, the effect of such intoxication takes place in structural changes, from the nature of the case, utterly impossible to demonstrate, or in impairment of vitality, or that form of motion

which is the property of protoplasm, which can only be seen in the effects produced in future development, evidence of which is to be met with in the prisons, in the asylums, and in the hospitals.

Scientific evidence which will positively connect alcoholic poisoning and the effect here asserted to make its appearance in the offspring, cannot be produced, from the impossibility of distinguishing between the effect of alcoholic impairment and that produced by other causes ; but from the analogy of its action on other organs and tissues, it seems unwise to conclude that it has no such action on the germinal tissues, especially in the face of the almost universally held opinion which has grown up from individual experience.

W. HENRY KESTIVEN.

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FOR THE

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